What is claimed is:

1. A stereoscopic display system comprising:

a single display for displaying right and left partial images sequentially in time;

a first optical arrangement for defining a common viewing beam path along which said right and left partial images are transmitted;

a second optical arrangement for splitting said common viewing beam path into separate first and second component beam paths for viewing only said left and only said right partial images, respectively; and,

a switchover device for alternately coupling information shown on said display from said common viewing beam path separately into said first and second component beam paths in synchronism with the presentation of said left and right partial images on said display.

2. The stereoscopic display system of claim 1, wherein said switchover device includes a mirror switchable into and out of said beam path.

3. The stereoscopic display system of claim 1, further comprising a light source for transmitting light along an illuminating beam path toward said display; and, said switchover device including a polarization switch mounted in said illuminating beam path or in said common viewing beam path.

4. The stereoscopic display system of claim 3, further comprising a partially transmitting mirror; polarization filters

mounted in corresponding ones of said first and second component beam paths; and, said polarization filters having respective pass-through directions crossed with respect to each other.

5. The stereoscopic display system of claim 3, said second optical arrangement comprising a polarization beam splitter for splitting said common viewing beam path into said first and second component beam paths.

6. The stereoscopic display system of claim 5, said switchover device including a polarization switch mounted in said common viewing beam path.

7. The stereoscopic display system of claim 1, said second optical arrangement including a transfer optic in one of said separate first and second component beam paths.

8. A viewing system worn by a person on the head, the viewing system comprising:

a head gear which can be worn by a person on the head;

a stereoscopic display system integrated into said head gear and including:

a single display for sequentially displaying right and left partial images;

a first optical arrangement for defining a common viewing beam path along which said right and left partial images are transmitted;

a second optical arrangement for splitting said common viewing beam path into separate first and second component beam paths for viewing only said left and only said right partial

images, respectively; and,

a switchover device for alternately coupling information shown on said display from said common viewing beam path separately into said first and second component beam paths in synchronism with the presentation of said left and right partial images on said display.

9. The viewing system of claim 8, wherein said head gear is a spectacle frame.

10. The viewing system of claim 8, said second optical arrangement including a beam splitter for splitting said common viewing beam path into said first and second component beam paths; and, said first optical arrangement including a deflecting mirror disposed between said display and said beam splitter.

11. A stereoscopic display system comprising:

a single display for sequentially displaying right and left partial images;

an optical arrangement for defining an illuminating beam path and for illuminating said display sequentially in time with light having first and second directions of polarization different from each other; and,

said optical arrangement including a polarization beam splitter mounted in said illuminating beam path.

12. The stereoscopic display system of claim 11, said optical arrangement comprising two light sources for emitting respective beams of light and said polarization beam splitter being mounted to receive said beams of light and to coaxially superpose said

beams of light one upon the other.

13. The stereoscopic display system of claim 12, further comprising a color filter wheel common to both of said light sources and mounted downstream thereof.

14. The stereoscopic display system of claim 13, further comprising a control unit for driving said color filter wheel in synchronism with a display of stereoscopic color sequences.